

July Weather and Crop Summary

Weather

Adequate rainfall and below-normal temperatures in the Corn Belt and Northeast contrasted sharply with hot, mostly dry weather in the South, High Plains, and Intermountain West. Late in the month, a pattern change brought heat intensification and increased wildfire activity to the West, cooler weather to the South, and widespread, drought-easing rainfall to the southern Atlantic States.

Heat and dryness depleted topsoil moisture in many areas from Texas to the Delta, stressing pastures and immature summer crops. Until late-month rainfall boosted topsoil moisture in the Southeast, 3 weeks of extremely hot, dry weather severely stressed already drought-affected crops. Farther north, Corn Belt temperatures remained well below 95°F, minimizing stress on reproductive to filling summer crops. Monthly temperatures averaged 1 to 4°F below normal in the Corn Belt, but up to 3°F above normal in the Southeast and as much as 5°F above normal in parts of southern Texas. Readings ranged from 1 to 4°F above normal on the northern and central High Plains. Despite hot weather in the Intermountain West, cool conditions prevailed closer to the West Coast. Temperatures averaged as much as 4°F below normal in California's Central Valley.

July rainfall totaled less than 50 percent (%) of normal in much of the West and in many areas from Texas to the Delta, resulting in near-record to record dryness in several locations. Significant dryness was also noted in the Southeast, especially in the hardest-hit drought areas of Georgia, Alabama, and western Florida.

Record-Low July Precipitation (Inches)

Location	Total	Normal	Former Record/Year
Dallas, TX	trace	2.31	trace in 1993
Ely, NV	trace	0.69	trace in 1897
New Orleans, LA	1.38	6.12	1.92 in 1981

Driest July (Inches) at Selected Locations Since...

Location	Total	Normal	Driest July Since...
San Angelo, TX	0.02	1.06	trace in 1970
Reno, NV	0.00	0.28	0.00 in 1942
Little Rock, AR	0.34	3.31	0.01 in 1930

In New Orleans, record-low July rainfall was also noted at Audubon Park (1.49 inches, breaking their July 1888 record of 2.02 inches), in addition to the airport record. Little Rock's 0.34-inch total represented their lowest monthly rainfall since only 0.07 inch fell in August 1980. Staggering long-term moisture deficits continued to mount in parts of the South, including a 22-month deficit of 39.59 inches in Pensacola, FL. Although Tallahassee, FL netted 5.01 inches (57% of normal) during July, their year-to-date rainfall of 16.16 inches (40%) stood 24.62 inches below normal. Farther west, only 0.30 inch dampened Flagstaff, AZ—barely above the July 1900 record low of 0.23 inch—leaving their year-to-date total at 7.07 inches (59% of normal). July 31 was the 145th consecutive day without measurable rainfall in Las Vegas, NV, second only to a 150-day dry spell in 1959. Las Vegas also recorded a 140-day dry spell (September 23, 1999 - February 9, 2000) last autumn and winter, but received 1.80 inches between February 10 and March 8.

Farther north, several locations from the Great Lakes States into the Northeast noted near-record to record July wetness and coolness.

Lowest July Average Temperature (°F)

Location	Avg.	Dep.	Former Record/Year
Binghamton, NY	64.7	-4.5	65.5 in 1956
Scranton, PA	67.2	-4.5	67.5 in 1956
Albany, NY	67.6	-4.2	67.6 in 1992
Youngstown, OH	68.0	-3.3	not available

Coolest July (°F) in Selected Locations Since...

Location	Avg.	Dep.	Coolest July Since...
Baltimore, MD	72.7	-4.3	71.6 in 1891
Akron-Canton, OH	67.8	-4.1	67.6 in 1904
Washington, DC	74.6	-5.4	74.4 in 1918
Cleveland, OH	68.0	-3.9	67.6 in 1960
Mansfield, OH	68.5	-3.6	68.0 in 1965
Syracuse, NY	67.1	-3.3	66.7 in 1976
Philadelphia, PA	74.0	-2.7	73.9 in 1984
Indianapolis, IN	73.0	-2.4	72.4 in 1984
Pittsburgh, PA	68.8	-3.3	68.5 in 1984
Allentown, PA	70.2	-3.9	70.1 in 1996
Grand Rapids, MI	68.6	-3.0	68.2 in 1996
Lansing, MI	66.7	-4.1	66.6 in 1996

Wettest July (Inches) at Selected Locations Since...

Location	Total	Normal	Wettest July Since...
Flint, MI	8.55	2.71	9.35 in 1992
Atlantic City, NJ	7.88	3.83	12.64 in 1969
Milwaukee, WI	7.12	3.47	7.66 in 1964

Nearly all (7.03 inches) of Flint's monthly rain fell from July 27-30, capping a wet period across the Great Lakes and Eastern States. Farther east, 4.87 inches soaked Scranton, PA from July 28-31. In Virginia, at least a trace of rain fell on 22 days during July in Lynchburg, totaling 6.89 inches (166% of normal). More than 10 inches of rain pelted a few areas along the southern Atlantic Coast, including Charleston, SC (10.81 inches, or 158% of normal) and Miami Beach, FL (13.16 inches, or 333%).

Unseasonably cool weather accompanied the rain in many areas. In New York, Albany's highest temperature during the month was 84°F on the 2nd, the first time on record their maxima failed to reach 85°F during July. Elsewhere in New York, Binghamton's highest temperature was 80°F on the 31st, breaking their July 1992 record (3 days) for fewest 80-degree days in July. Binghamton also completed their wettest January-July period on record (31.52 inches, or 149% of normal), breaking the 1998 record of 29.00 inches. Meanwhile, year-to-date temperatures failed to reach 90°F through July for the first time on record in several Corn Belt locations, including Peoria, IL and Springfield, IL. Previous records for the latest first observance of 90-degree heat had been July 22, 1960, in Peoria, and July 16, 1904, in Springfield. Washington, DC registered only 1 day of 90-degree heat (91°F on July 10), compared with 22 such days in 1999 and an average of 14 days.

A particularly cool airmass reached the Great Lakes region on the 19th, resulting in July-record lows in Michigan's Upper Peninsula at Manistique (34°F) and Escanaba (36°F). On the same morning in northeastern Minnesota, Tower posted a low of 29°F. A day earlier, high temperatures had climbed only to 58°F in Green Bay, WI and Rochester, MN, the stations' lowest on record for July.

In contrast, Tuscaloosa registered 9 daily-record highs in 12 days from July 9-20, including highs of 105°F on July 15 and 19. Pensacola recorded triple-digit heat on July 7 for the first time since June 27, 1988, then experienced 6 additional days at or above 100°F from July 13-20. In Mississippi, Meridian's high of 106°F on July 16 was their second-highest reading on record, behind only 107°F on July 14, 1980. Nighttime provided little relief, as evidenced by the highest minimum temperatures on record in locations such as Tallahassee, FL (80°F on July 17) and Midland, TX (83°F on July 26).

Highest July Average Temperature (°F)

Location	Avg.	Dep.	Former Record/Year
Pensacola, FL	85.6	+3.5	85.4 in 1980

Hottest July (°F) in Selected Locations Since...

Location	Avg.	Dep.	Warmest July Since...
Tallahassee, FL	84.6	+3.3	85.4 in 1932
Del Rio, TX	89.7	+4.5	91.6 in 1998
Midland, TX	85.4	+3.4	86.9 in 1998

Heat periodically affected areas as far north as the Montana High Plains, where Great Falls (100°F on July 29) notched their first 100-degree day since August 11, 1996. July high temperatures averaged 94.1°F (5.3°F above normal) in Miles City, MT, including maxima of 105°F on July 14 and 106°F on July 30. Farther south, Denver, CO weathered a near-record 17-day spell (June 29 - July 15) of 90-degree heat that included their first triple-digit heat (101°F on July 6) since July 20, 1998. Heat intensification in the West at month's end produced all-time-record highs on July 30 in locations such as Burley, ID (107°F), Tooele, UT (106°F), and Eureka, NV (101°F). By the end of the July, the Nation's year-to-date wildfire acreage reached approximately 3.5 million acres according to the National Interagency Fire Center, more than 180% of the 10-year average. In June and July, well over 700,000 acres (more than 20% of the national year-to-date acreage) burned in both Alaska and the Great Basin.

Much of Alaska noted cool, wet weather in mid- to late July, easing pockets of dryness and suppressing wildfires that had flared in late June and early July. In the Tanana Valley at Fairbanks, where the visibility dropped to one-half mile in smoke early in the month, the air cleared markedly after July 10. Monthly temperatures averaged as much as 3°F below normal, while precipitation was greater than 200% of normal in a few northern and western locations. In Barrow, where monthly precipitation topped 2 inches, the 0.63-inch total on July 4 marked their ninth-wettest day during the 85-year period of record. In southern Alaska, Juneau netted 6.65 inches of rain (160% of normal) in